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UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service

UNITED STATES STANDARDS FOR GRADES OF TOMATO CATSUP
(Effective April 15, 1941)



DEFINITION

The standard of identity for tomato catsup promulgated under Section 401 of the Federal Food, Drug, and Cosmetic Act of June 25, 1938, is hereby adopted for the purpose of these grades. Mold filament may show in not to exceed 40 percent of the microscopic fields, when examined according to the Howard method.

GRADES OF TOMATO CATSUP

U. S. GRADE A or U. S. FANCY tomato catsup possesses a good red, ripe tomato color and a good consistency; has a uniform smooth finish; is practically free from particles of seed, skin, core, and other defects; possesses a good flavor; has a specific gravity of not less than 1.15; and scores not less than 85 points when scored according to the scoring system outlined herein.

U. S. GRADE C or U. S. STANDARD tomato catsup possesses a fairly good red color and a fairly good consistency; has a fairly good finish; is fairly free from particles of seed, skin, core, and other defects; possesses a fairly good flavor; has a specific gravity of not less than 1.111; and scores not less than 70 points when scored according to the scoring system outlined herein.

OFF-GRADE tomato catsup is tomato catsup which fails to meet the requirements for U. S. GRADE C or U. S. STANDARD but is sound and clean and does not exceed the tolerance for mold.

HEAD SPACE AND FILL REQUIREMENTS

If packed in bottles, the containers shall be so filled that the product occupies 90 percent or more of the volume capacity of the container, measured in fluid ounces. If packed in cans, the head space shall not exceed the maximum allowable, as indicated in the following table. If the head space or fill requirements are not met, or if the containers have not been filled as full as practicable without impairment of quality, certificates of grade shall bear the statement, "Below Standard in Fill."

Can size	:	Maximum head space allowable (measured from top of double seam in 16ths of an inch).
No. 2	:	9.7
No. 2-1/2	:	9.9
No. 10	:	13.6

ASCERTAINING THE GRADE

The grade of tomato catsup may be ascertained by considering, in addition to the foregoing requirements, the following factors: Color, consistency, absence of defects, and flavor. The relative importance of each factor has been expressed numerically on a scale of 100. The maximum score that may be given for each factor is:

	POINTS
I. Color - - - - -	25
II. Consistency - - - - -	25
III. Absence of defects - - - - -	25
IV. Flavor - - - - -	25
TOTAL SCORE - - - -	100

ASCERTAINING THE RATING OF EACH FACTOR

The essential variations within each factor are so described that the value may be ascertained for each factor and expressed numerically. The numerical ranges within each factor are inclusive. For example, the range 21 to 25 means 21, 22, 23, 24, and 25.

- I. COLOR - The score for the factor color is determined by comparing the color of the product with that produced by spinning a combination of the following Munsell color discs:

Disc 1 - Red (5R 2.6/13) - (Glossy finish)

Disc 2 - Yellow (2.5YR 5/12) - (Glossy finish)

Disc 3 - Black (N1) - (Glossy finish)

Disc 4 - Grey (N4) - (Mat finish)

- (A) Tomato catsup that is of good red, ripe tomato color may be given a score of 21 to 25 points. This color is the equivalent of or better than that produced by spinning the above mentioned Munsell color discs in the following combination: 65 percent of the area Disc 1; 21 percent of the area Disc 2; 14 percent of the area either Disc 3 or Disc 4 or any combination of the two. To receive a score in this classification tomato catsup, when packed in glass, must not show discoloration in the "neck" of the bottle.
- (C) If the tomato catsup possesses a fairly good color, with red predominating, a score of 17 to 20 points may be given. This color is the equivalent of or better than that produced by spinning the above mentioned Munsell color discs in the following combination: 53 percent of the area Disc 1; 28 percent of the area Disc 2; 19 percent of the area either Disc 3 or Disc 4 or

any combination of the two. Tomato catsup that falls into this classification shall not be graded above U. S. GRADE C or U. S. STANDARD, regardless of the total score for the product.

- (D) If the color is poor or fails to meet the requirements of paragraph (C) above, or if the catsup in the "neck" of the bottle is badly discolored, a score of 0 to 16 points may be given. Tomato catsup that falls into this classification shall not be graded above OFF-GRADE, regardless of the total score for the product.

II. CONSISTENCY - The factor of consistency refers to the homogeneity of the product. Separation of free liquid is to be noted in this connection.

- (A) Tomato catsup that shows not more than a slight separation of free liquid and which flows not more than 10 centimeters in 30 seconds at 20 degrees Centigrade in the Bostwick consistometer may be given a score of 22 to 25 points.
- (C) If the product shows noticeable separation of free liquid or flows more than 10 centimeters but not more than 18 centimeters in the Bostwick consistometer, a score of 18 to 21 points may be given. Tomato catsup that falls into this classification shall not be graded above U. S. GRADE C or U. S. STANDARD, regardless of the total score for the product.
- (D) If the tomato catsup fails to meet the requirements of paragraph (C) above, a score of 0 to 17 points may be given. Tomato catsup that falls into this classification shall not be graded above OFF-GRADE, regardless of the total score for the product.

III. ABSENCE OF DEFECTS

- (A) Tomato catsup that is practically free from specks, particles of seed, skin, or core, or other defects indicating improper preparation of the tomato material may be given a score of 21 to 25 points.
- (C) If the catsup is fairly free from defects, possessing defects that are noticeable but not prominent, a score of 18 to 20 points may be given. Tomato catsup that falls into this classification shall not be graded above U. S. GRADE C or U. S. STANDARD, regardless of the total score for the product.
- (D) Tomato catsup in which the defects are prominent may be given a score of 0 to 17 points. Tomato catsup that falls into this classification shall not be graded above OFF-GRADE, regardless of the total score for the product.

IV. FLAVOR - The quality of flavor of tomato catsup shall be classified from the standpoint of palatability.

- (A) Tomato catsup that possesses a clean, aromatic, typical flavor indicating that the product has been made from good quality tomato material, spices, and vinegar may be given a score of 21 to 25 points.
- (C) Tomato catsup that possesses only a fairly good flavor, possessing a slight flavor of green or over-ripe tomatoes, or of over-spicing or under-spicing, or possessing a slightly scorched or bitter flavor, or a flavor indicating the use of low quality spices, may be given a score of 17 to 20 points. Tomato catsup that falls into this classification shall not be graded above U. S. GRADE C or U. S. STANDARD, regardless of the total score for the product.

(D) If the tomato catsup possesses a poor flavor for any reason, a score of 0 to 16 points may be given. Tomato catsup that falls into this classification shall not be graded above OFF-GRADE, regardless of the total score for the product.

Issued: March 24, 1941.
(Date)

Curritson

Chief

Applicant
Address

Lot or car No.

Samples submitted
or drawn by

Type of container

Type of closure (if bottled)

Net weight (in ounces)

	:Max.	:Points
F	C	
A	P	
E	C	
E	C	

:(A)21 - 25:

:(D) 0 - 16:

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III. ABSENCE OF
: 25 : (C) 18 - 20:
DETECTED

:(A)21 - 25:

19: (D) 0 - 15:

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